

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058027

Luminaire Tested: S122RDRP-S485D950-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058027  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-59)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S485D950-X4F0-XX-UDD-SVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

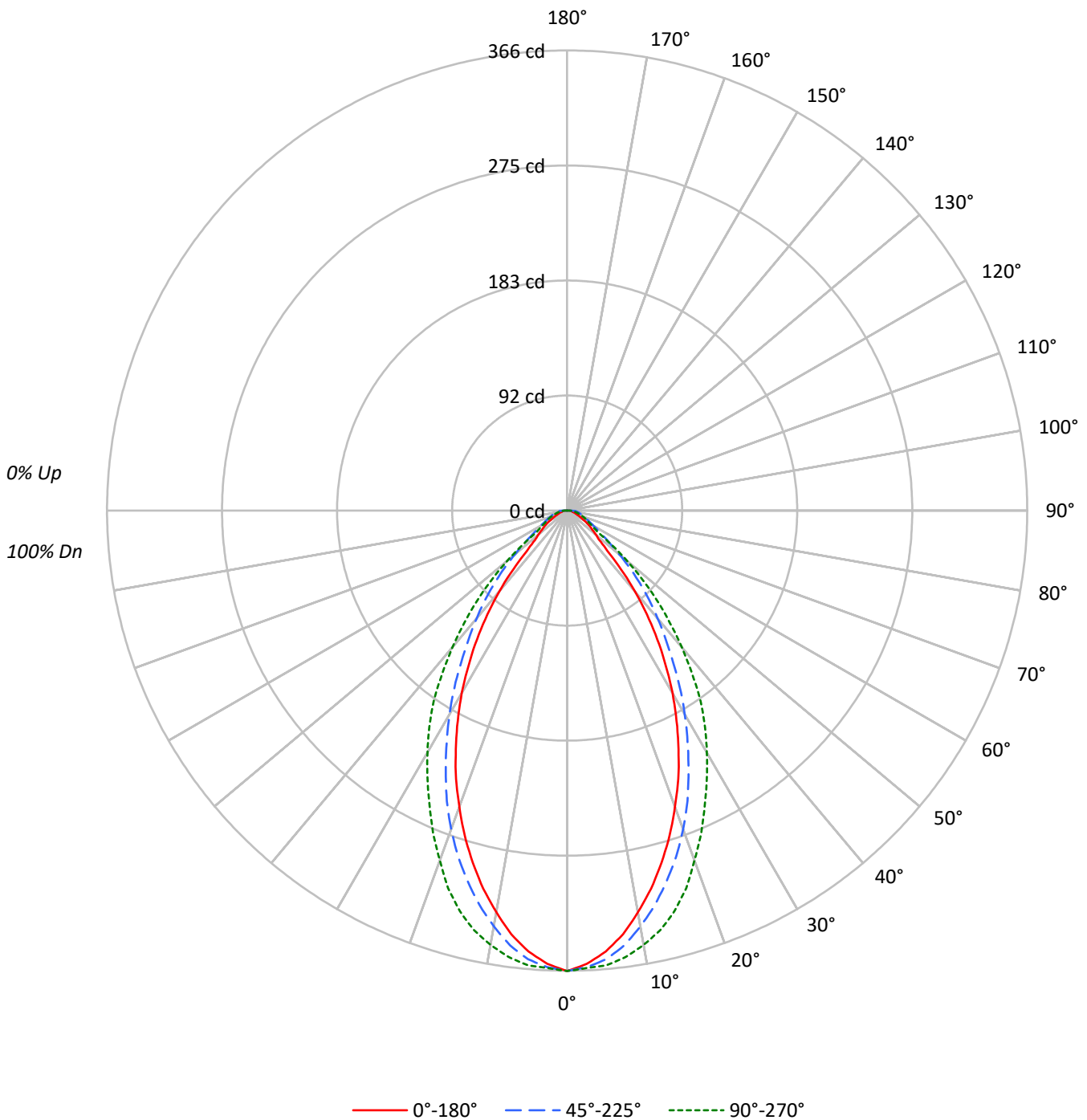
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 441.8 lumens  
Efficiency: N/A  
Efficacy: 22.5 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	66	62	71	65	61	69	64	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	45	66	56	49	44	55	49	44	54	48	44	53	48	44	42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6757	6757	6757
5°	6522	6633	6722
10°	6078	6292	6571
15°	5538	5834	6300
20°	4923	5294	5812
25°	4265	4650	5269
30°	3571	3989	4737
35°	2816	3302	4172
40°	2019	2703	3418
45°	1182	2135	2646
50°	853	1553	1786
55°	717	1110	936
60°	572	897	797
65°	472	795	738
70°	399	766	691
75°	385	820	677
80°	436	1010	723
85°	720	1567	995

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2646 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.6	7.6
10°-20°	86.0	19.5
20°-30°	105.7	23.9
30°-40°	93.4	21.1
40°-50°	59.6	13.5
50°-60°	29.1	6.6
60°-70°	17.3	3.9
70°-80°	11.1	2.5
80°-90°	6.1	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	225.2	51.0
0°-40°	318.6	72.1
0°-60°	407.4	92.2
0°-90°	441.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	441.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	366	366	366	366	366	
5°	352	360	358	360	363	33
15°	290	298	305	319	330	81
25°	210	217	228	243	259	96
35°	125	132	147	167	185	78
45°	45	58	82	92	101	38
55°	22	30	34	32	29	20
65°	11	20	18	17	17	11
75°	5	12	12	10	10	6
85°	3	7	7	7	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	366.2	366.2	366.2	366.2	366.2
2.5°	360.8	367.6	363.5	363.5	364.2
5°	352.1	359.5	358.1	359.5	362.9
7.5°	339.9	347.3	348.7	354.1	358.1
10°	324.4	331.8	335.8	344.6	350.7
12.5°	308.1	315.6	321.6	333.1	341.9
15°	289.9	298.0	305.4	318.9	329.8
17.5°	271.0	279.1	288.5	302.1	314.9
20°	250.7	258.1	269.6	282.5	296.0
22.5°	231.1	237.9	250.0	262.2	278.4
25°	209.5	216.9	228.4	242.6	258.8
27.5°	188.5	196.0	207.5	223.7	240.6
30°	167.6	174.3	187.2	204.1	222.3
32.5°	146.0	152.7	166.9	185.2	204.1
35°	125.0	131.8	146.6	166.9	185.2
37.5°	104.1	111.5	128.4	147.3	162.9
40°	83.8	92.6	112.2	128.4	141.9
42.5°	63.5	75.7	96.6	110.1	121.0
45°	45.3	58.1	81.8	91.9	101.4
47.5°	34.5	44.6	67.6	75.0	81.1
50°	29.7	36.5	54.1	59.5	62.2
52.5°	25.7	32.4	43.2	45.3	43.9
55°	22.3	29.7	34.5	32.4	29.1
57.5°	18.9	27.7	28.4	24.3	25.0
60°	15.5	25.0	24.3	20.9	21.6
62.5°	12.8	23.0	20.9	18.9	18.9
65°	10.8	20.3	18.2	16.9	16.9
67.5°	8.8	18.2	16.2	14.9	14.9
70°	7.4	16.2	14.2	12.8	12.8
72.5°	6.8	14.2	12.8	11.5	11.5
75°	5.4	12.2	11.5	10.1	9.5
77.5°	4.7	10.1	10.1	9.5	8.1
80°	4.1	8.8	9.5	8.1	6.8
82.5°	4.1	8.1	8.1	7.4	5.4
85°	3.4	6.8	7.4	6.8	4.7
87.5°	2.0	6.1	6.1	5.4	3.4
90°	0.0	0.0	0.0	0.0	0.0



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	8.66	9.94	9.03	10.26	10.57	8.19	9.46	8.55	9.78	10.09
	3H	9.84	10.98	10.22	11.31	11.67	9.75	10.89	10.13	11.22	11.58
	4H	10.27	11.33	10.67	11.68	12.07	10.44	11.50	10.84	11.85	12.23
	6H	10.61	11.59	11.03	11.96	12.36	11.09	12.06	11.50	12.43	12.83
	8H	10.82	11.74	11.25	12.13	12.54	11.38	12.30	11.81	12.69	13.10
	12H	11.04	11.92	11.47	12.31	12.74	11.69	12.58	12.12	12.96	13.39
4H	2H	9.16	10.23	9.57	10.58	10.96	8.78	9.84	9.19	10.20	10.58
	3H	10.81	11.68	11.22	12.09	12.49	10.59	11.46	11.00	11.86	12.27
	4H	11.58	12.36	12.01	12.78	13.23	11.43	12.21	11.86	12.63	13.08
	6H	12.18	12.86	12.64	13.31	13.77	12.29	12.97	12.75	13.41	13.88
	8H	12.48	13.12	12.95	13.56	14.04	12.68	13.31	13.15	13.76	14.23
	12H	12.80	13.36	13.29	13.84	14.32	13.11	13.68	13.60	14.16	14.63
8H	4H	11.99	12.63	12.46	13.08	13.55	11.89	12.52	12.36	12.97	13.44
	6H	12.94	13.47	13.45	13.96	14.44	13.00	13.52	13.50	14.02	14.50
	8H	13.49	13.96	14.01	14.48	14.97	13.58	14.04	14.10	14.56	15.05
	12H	14.06	14.48	14.58	14.97	15.55	14.25	14.66	14.76	15.16	15.73
12H	4H	12.06	12.63	12.55	13.11	13.58	11.97	12.53	12.46	13.02	13.49
	6H	13.13	13.60	13.65	14.11	14.60	13.18	13.65	13.71	14.17	14.66
	8H	13.82	14.24	14.34	14.73	15.30	13.89	14.31	14.41	14.80	15.37